

PRODUCT INFORMATION



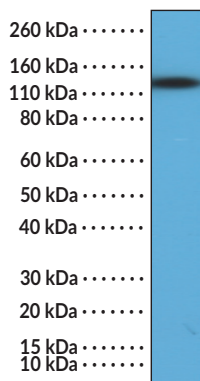
MSH3 (N-Term) Rabbit Monoclonal Antibody (RM405)

Item No. 32331

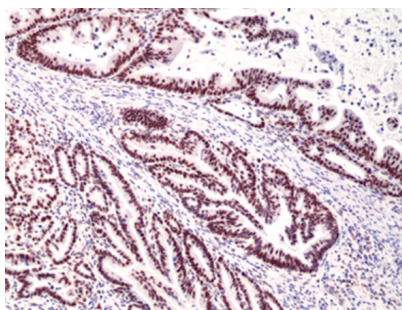
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	DNA Mismatch Repair Protein MSH3, Mismatch Repair Protein 1, MRP1, MutS Homolog 3
Immunogen:	Peptide from the N-terminal region of human MSH3
Cross Reactivity:	(+) MSH3
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM405
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100-1:200 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of 293 cell lysate using MSH3 (N-Term) Rabbit Monoclonal Antibody (RM405) at a dilution of 1:800.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human colon cancer tissue using MSH3 (N-Term) Rabbit Monoclonal Antibody (RM405) at a dilution of 1:200.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/21/2024

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

MutS homolog 3 (MSH3) is a DNA repair protein.^{1,2} It heterodimerizes with MSH2 to form the MutS β complex, which is divided into mismatch-binding, connector, α -helical lever, clamp, ATPase, and dimerization domains.³ It is ubiquitously expressed and localized to the nucleus. MSH3, when complexed with MSH2, recognizes nucleotide insertion-deletion mismatches, as well as larger insertion-deletion loops, to activate MutL and initiate DNA repair.² SNPs in *MSH3* are associated with disease progression in patients with Huntington's disease.⁴ Cayman's MSH3 (N-Term) Rabbit Monoclonal Antibody (RM405) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Stanisławska-Sachadyn, A. and Sachadyn, P. MutS as a tool for mutation detection. *Acta Biochim. Pol.* **52(3)**, 575-583 (2005).
2. Guerrette, S., Wilson, T., Gradia, S., *et al.* Interactions of human hMSH2 with hMSH3 and hMSH2 with hMSH6: Examination of mutations found in hereditary nonpolyposis colorectal cancer. *Mol. Cell. Biol.* **18(11)**, 6616-6623 (1998).
3. Sharma, M., Predeus, A.V., Kovacs, N., *et al.* Differential mismatch recognition specificities of eukaryotic MutS homologs, MutSa and MutS β . *Biophys J.* **106(11)**, 2483-2492 (2014).
4. Flower, M., Lomeikaite, V., Ciosi, M., *et al.* MSH3 modifies somatic instability and disease severity in Huntington's and myotonic dystrophy type 1. *Brain* **142(7)**, 1876-1886 (2019).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM